IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

Appl No.:	**10/760,344**
Applicant:	**Tzong-Feng Chen**
Filing Date:	**1/21/2004**
Art Unit:	**2454**
Examiner:	**Keefer, Michael E**
Attorney Docket No.:	**66307-007**

For: **Method of optimizing packet flow in a ring stackable network architecture**

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF IN SUPPORT OF APPELLANT'S APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Sir:

Applicant hereby submits this Reply Brief in support his/her appeal from a final decision by the Examiner for the application referenced above. Applicant respectfully requests favorable consideration of this appeal by the Board of Patent Appeals and Interferences for allowance.

If any necessary fee is not submitted via EFS, the Office is authorized to charge the necessary fee to Deposit Account No. 50-5064.

This brief contains items under the following headings as required by 37 CFR § 41.37:

I. Real party in interest

II. Related appeals and interferences

III. Status of claims

IV. Status of amendments

V. Summary of claimed subject matter

VI. Grounds of rejection to be reviewed on appeal

VII. Argument

VIII. Claims appendix

IX. Evidence appendix

X. Related proceeding appendix

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

ALPHA NETWORKS, INC.

II. RELATED APPELAS AND INTERFERENCES

There are no related appeals, interferences, or judicial proceedings known to the undersigned which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. There are 6 claims pending in this application. Claim 1 is the only independent claim; claims 2-6 are dependent claims.
B. Current status of the claims: Claims 1-6 are rejected.
C. The claims on appeal are claims 1-6.

IV. STATUS OF AMENDMENTS

On September 2, 2008, applicant filed a Request for Reconsideration After Final Rejection. On September 10, 2008, the office issued an Advisor Action indicating that the proposed amendment would be entered for the purpose of appeal. However, applicant did not propose any claim amendment in the Request for Reconsideration After Final Rejection.

V. SUMMARY OF CLAIMED SUBJECTED MATTER

The current invention discloses a method to select a data packet transferring path in a ring topology network (specification page 3, line 6 to page 6, line 4, and in Fig. 2). The ring topology network, as illustrated in figures 1 and 2, is a network architecture wherein all the nodes are connected to each other in a circle.

The current application's background discloses that in order to prevent any infinite looping in a ring topology network, the ring topology network has one interruption point for stopping data from further transferring and receiving (specification, page 2, 2nd paragraph, figure 1). Since data packet can not across over this interruption point, the data packet may have to loop around the ring topology network in order to avoid the interruption point, which may not be the shortest physical distance to its designation (specification, page 2, 3rd and 4th paragraph).

To overcome the deficiency in the prior art, the claimed invention provides a plurality of interruption points for a ring topology network, and each interruption point is only corresponding to one particular node on the network, and each interruption point is positioned at the location farthest from its corresponding node (claim 1, 2nd limitation, specification, page 4, lines 5-14). By using each dedicated interruption point as a dividing point for each node, the claimed invention provides two paths for each corresponding node to access every other node on the ring topology network. Since each interruption point is positioned at a location farthest from its corresponding node, both paths for the corresponding node will have equal or almost equal physical length; such that the current invention ensures the shortest data packet traveling distance, and it also preserves the benefit of the interruption point for preventing any infinite looping.

Claim 1 recites, *inter alia*, a method of optimizing packet flow in a ring stackable network architecture, comprising: "implementing in a ring network including a plurality of switches (Specification, page 4, line 8, figure 2, switches A..G); setting a plurality of interruption points each at a location farthest from a unique one of the switches (Specification, page 4, lines 8-9, figures 2, interruption points at A..G); dividing a packet output path of each switch into two different transfer paths (Specification, page 4, lines 9-10); selecting either transfer path based on an initialization when one of the switches is about to send a packet to the other switch (Specification, page 4, lines 10-12); and sending the packet from one switch to the other switch along the selected transfer path, thereby achieving purposes of optimizing flow and fully utilizing available bandwidth (Specification, page 4, lines 12-15)."

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ramfelt et al. (U.S. Patent No. 6,106,338)

VII. ARGUMENT

Claims 1-6 are not anticipated by Ramfelt under 35 U.S.C. § 102(b).

In the Examiner's Answer, Examiner stated that the claim 1 does not recite the limitation of setting a predetermined fixed point for each node on the ring for transferring the packets from that node (Examiner's Answer, page 5, 3rd paragraph). Applicant respectfully disagrees.

The claim 1 recites the limitations that "setting a plurality of interruption points each at a location farthest from a unique one of the switches" and "dividing a packet output path of each switch into two different transfer paths". The Specification, as originally presented, discloses that the interruption points are used to prevent data packets been further forwarded (Specification, page 2, 3rd paragraph). The claim 1 recites that one interrupt point is set at a location farthest from each switch; thus, the interrupt point with its inherent characteristic functions as the dividing point for the corresponding switch by prohibiting any further packet transferring. Therefore, Applicant respectfully disagrees with the Examiner's allegation and submits that the claim 1 does recite the limitation.

In Examiner's Answer, Examiner alleged that by numbering the nodes and performing the calculation, Ramfelt's methodology is also achieving the "setting interruption point". Examiner further alleged that Ramfelt discloses the mid point as the interruption point in figure 1, points 16 and 22 (Examiner's Answer, page 6, 2nd paragraph, 4th paragraph, and 5th paragraph). Applicant respectfully disagrees and felt that Examiner's assertion is misleading.

As discussed above, each interruption point is set the farthest location of each switch. Since each interruption point is set the farthest location of each switch, each interruption point is a mid point on the node for each corresponding switch. Examiner alleged that Ramfelt's figure 1 discloses points 16 and 22 are the mid points for the node 65. While points 16 and 22 are the mid points for

the node 65, Ramfelt does not use this mid point division in his calculation as alleged by Examiner. As cited by the Examiner, in Ramfelt's column 7 line 61 to column 8 line 11, Ramfelt discloses the calculation as the smallest value of: a) the chronological number of the destination node minus the chronological number of the source node; and b) chronological number of the source node plus the total number of nodes in the ring, minus the chronological number of the destination node. Essentially, Ramfelt is calculating and comparing the traveling distances from the source to destination for both clockwise direction and counter-clockwise direction. Ramfelt does not preset any mid point as recited in the claim 1 or as alleged by the Examiner. In Ramfelt's example, the destination node is node 69 and the source node is node 61; the mid point for the node 61 would be node 66; yet, Ramfelt's calculation does not consider node 66 in determining the traveling direction. Therefore, for the reason stated above, Applicant respectfully submits that Ramfelt's methodology does not achieve the "setting interruption point".

Examiner's Answer stated that "designation point" should be "destination point". (Examiner's Answer, page 6, 3rd paragraph) Applicant agrees with the Examiner and thanks Examiner's careful review.

For the reasons discussed above, Applicant respectfully submits that the cited reference does not disclose every recited limitation in claim 1 as required under 35 USC 102(b).

Claim 2 recites, inter alia, "...wherein each switch comprises a first stacking port and a second stacking port."

Claim 3 recites, inter alia, "...wherein with respect to the packet output path of each switch one transfer path is set as a first transfer path and the other transfer path is set as a second transfer path prior to the initialization, removing one switch, or adding a switch."

Claim 4 recites, inter alia, "...wherein the first transfer path is coupled to the first stacking port and the second transfer path is coupled to the second stacking port."

Claim 5 recites, inter alia, "...wherein a correct one of the first and second stacking ports is selected for a packet based on the initialization when a first computer coupled to one switch is about to send the packet to a second computer coupled to the other switch."

Claim 6 recites, inter alia, "...wherein each switch comprises a path determination software or chip so that when a first computer coupled to one switch is about to send a packet to a second computer coupled to the other switch, the path determination software or chip is adapted to compare and select a correct one of the first and second stacking ports and a correct one of the transfer paths based on a destination of the packet prior to transfer."

Claims 2-6 depend on claim 1, and should be similarly allowable with claim 1 for at least the reasons provided above with regard to claim 1, and on their own merits.

Conclusion

Claims 1-6 are pending in this application. In view of the reasons stated above, applicant prays the board for a favorable decision and reversing the rejection on the record accordingly. A copy of claims 1-6 is attached hereto as Claims Appendix.

Respectfully submitted,
WPAT, P.C.

By___/Justin I. King/_____
Justin I. King
Registration No. 50,464

November 16, 2009
WPAT, P.C.
1940 Duke Street
Suite 200
Alexandria, VA 22314
Telephone (703) 684-4411
Facsimile (703) 880-7487

VIII. CLAIMS APPENDIX

1. A method of optimizing packet flow in a ring stackable network architecture, comprising:

implementing in a ring network including a plurality of switches;

setting a plurality of interruption points each at a location farthest from a unique one of the switches;

dividing a packet output path of each switch into two different transfer paths;

selecting either transfer path based on an initialization when one of the switches is about to send a packet to the other switch; and

sending the packet from one switch to the other switch along the selected transfer path, thereby achieving purposes of optimizing flow and fully utilizing available bandwidth.

2. The method of claim 1, wherein each switch comprises a first stacking port and a second stacking port.

3. The method of claim 2, wherein with respect to the packet output path of each switch one transfer path is set as a first transfer path and the other transfer path is set as a second transfer path prior to the initialization, removing one switch, or adding a switch.

4. The method of claim 3, wherein the first transfer path is coupled to the first stacking port and the second transfer path is coupled to the second stacking port.

5. The method of claim 4, wherein a correct one of the first and second stacking ports is selected for a packet based on the initialization when a first computer coupled to one switch is about to send the packet to a second computer coupled to the other switch.

6. The method of claim 4, wherein each switch comprises a path determination software or chip so that when a first computer coupled to one switch is about to send a packet to a second computer coupled to the other switch, the path determination software or chip is adapted to compare and select a correct one of the first and second stacking ports and a correct one of the transfer paths based on a destination of the packet prior to transfer.

IX. EVIDENCE APPENDIX

No evidence beyond the cited references.

X. RELATED PROCEEDING APPENDIX

There are no related appeals, interferences, or judicial proceedings known to the undersigned which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.